

REMARKS

Reconsideration and withdrawal of the objections to and rejections of the application are requested in view of the amendments and remarks herewith, which are believed to place the application into condition for allowance.

I. STATUS OF CLAIMS AND FORMAL MATTERS

By this paper claims 8 and 15-19 are cancelled and new claims 20-23 are added. Thus, claims 20-23 are now pending in this application. Support for new claims 20-23 can be found throughout the specification and from the claims as originally filed. No new matter is added. It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art, and that these claims are and were in full compliance with the requirements of 35 U.S.C. §112.

II. OBJECTIONS TO THE SPECIFICATION

The Examiner objected to the fact that the specification contained blank spaces in which it appeared that chemical formulae were meant to have been inserted, and requested appropriate correction of the specification. The Examiner is thanked for pointing out this omission.

Submitted herewith are "clean" and "marked-up" versions of a substitute specification in which the following changes have been made. On page 5 of the specification the original version of "formula I" has been deleted and replaced with a corrected version of "formula I" in which the chemical bonds are shown. Similarly, on page 6 of the specification the original version of "formula II" has been deleted and replaced with a corrected version of "formula II" in which the chemical bonds are shown. On page 8 the appropriate chemical formulae have been added into the four spaces in the text. Similarly, on page 9 the appropriate chemical formulae have been added into the two spaces in the text. In the marked-up version of the specification, the chemical formulae to be deleted have been "struck-through" and the chemical formulae to be added have been underlined.

The substitute specification is filed in accordance with the requirements of 37 C.F.R. §1.125, and contains no new matter. Specifically, the chemical formulae added to pages 8 and 9 do not constitute new matter, as these formulae were present in German patent application DE 199 05 224.7 to which priority is claimed in the present application. We have attached what we have been advised is a copy of the German priority document. If a certified copy is necessary,

please advise. Applicants submit that the omission of these chemical formulae from the present application was the result of an unintentional error.

III. OBJECTIONS TO THE CLAIMS

The Examiner objected to claim 8, alleging that this claim was of improper dependent form. By the cancellation of claim 8 this objection is rendered moot.

IV. REJECTIONS UNDER 35 U.S.C. §102(b)

The Examiner rejected claims 16-18 as being anticipated by U.S. patent 5,476,912 to Hosoi et al. ("Hosoi"). By the cancellation of claims 16-18 this rejection is rendered moot.

Furthermore, it is submitted that new claim 20, and claims 21-23 which depend therefrom, are novel and are not anticipated by Hosoi et al. The new claims recite copolymer adhesives that have a base chain (i.e. a backbone) made up of repeating structural units of SiH group-containing siloxanes. The siloxanes are thus an integral part of the copolymer backbone of the presently claimed adhesives. Such compounds are neither taught nor suggested by Hosoi, which states in the "Field of the Invention" section that:

"the invention relates to a novel silicone-modified acrylic copolymer... with an SiH reaction point on a side chain thereof"

(See column 1 of Hosoi, lines 7-9. Emphasis added).

Hosoi does not teach or suggest a copolymer that has a base chain or backbone that includes at least one SiH-group-containing siloxane, as recited in new claim 20. Instead Hosoi involves molecules having a polymeric hydrocarbon backbone and SiH containing siloxane side chains.

The Office Action specifically pointed to the copolymers illustrated in columns 6-12 of Hosoi. However, none of these structures contain SiH-containing siloxanes in their polymeric hydrocarbon backbones. Instead the SiH-group-containing siloxane groups illustrated in columns 6-12 of Hosoi are located on the side chains which branch off from the hydrocarbon backbone. The polymers illustrated in columns 6-12 of Hosoi have long hydrocarbon base chains, some containing 800 or more repeating hydrocarbon units (see the numerals representing the number of repeating units in the base chains), and only have SiH-group-containing siloxane groups in their side chains. This is in direct contrast to the copolymers recited in the new claims that contain SiH-group-containing siloxane groups in their base chains. The presently claimed

adhesives are thus structurally different from the adhesives of Hosoi. Accordingly, it is respectfully submitted that the new claims presented herein are not anticipated by Hosoi.

V. REJECTIONS UNDER 35 U.S.C. §103(a)

The Examiner rejected claim 19 under 35 U.S.C. 103(a) as being unpatentable over Hosoi. In the Office Action it was alleged that, although Hosoi does not teach using adhesives to bond silicone impression materials to impression trays, such a use would have been obvious. By this paper claim 19 is cancelled thus rendering this rejection moot.

It is submitted that new claim 23, which like claim 19 is directed to a method of bonding silicone impression materials to impression trays, is not rendered obvious by Hosoi. As stated above, Hosoi involves copolymers with hydrocarbon backbones, and fails to teach or suggest copolymers having a backbone that includes at least one SiH-group-containing siloxane group, as recited in the new claims.

Furthermore, Hosoi does not suggest modifying the backbone of the copolymers molecules to include SiH-group-containing siloxane groups therein. For an obviousness rejection to stand there must be some teaching which would have provided the necessary incentive or motivation for modifying the reference's teaching. *In re Laskowski*, 12 U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989); *In re Obukowitz*, 27 U.S.P.Q. 2d 1063 (B.P.A.I. 1993). Further, "obvious to try" is not the standard under 35 U.S.C. §103. *In re Fine*, 5 U.S.P.Q. 2d 1596, 1599 (Fed. Cir. 1988). And, as stated by the Court in *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1783-1784 (Fed. Cir. 1992): "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification." Also, for a rejection under 35 U.S.C. 103(a) to be proper, both the suggestion of the claimed invention and the expectation of success must be founded in the prior art, and not Applicants' disclosure. *In re Dow*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988). Hosoi does not suggest modifying the backbone of the copolymers molecules to include SiH-group-containing siloxane groups therein.

It is because of their unique backbone structure that the adhesive copolymers of the present invention exhibit about 40 % improved adhesion of over the adhesives of Hosoi. The compounds of the present invention have an adhesion of about 3.5 MPa whereas the product of Hosoi has an adhesion of only 2.3 MPa. This increased adhesiveness of is attributed in part to the backbone structure of the presently claimed adhesives.

Therefore, the presently claimed adhesives are not obvious over Hosoi, regardless of whether the adhesives are used to bond dental prostheses to silicone relinings or whether they are used to bond silicone impression materials to impression trays. Accordingly, it is respectfully submitted that the new claims presented herein are not obvious over Hosoi.

CONCLUSION

In view of the remarks and amendments herewith the application is in condition for allowance. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance are earnestly solicited. The undersigned looks forward to hearing favorably from the Examiner at an early date.

Respectfully submitted,
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